

The Role of Brand Relationship Quality and Cultural Values in Building
Brand Loyalty in Social Commerce Environments

Di Lyu

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By: Di Lyu

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Signed by the final examining committee:

Dr. Linda Dyer Chair

Dr. Michele Paulin Examiner

Dr. Kamila Sobol Examiner

Dr. Michel Laroche Supervisor

Approved by _____

Chair or Department of Graduate Program Director

Dean of Faculty

Date _____

Abstract

The Role of Brand Relationship Quality and Cultural Values in Building Brand Loyalty in Social Commerce Environments

Di Lyu

Rapid development of social commerce environments has made marketers and managers sense enormous business values in that, they hope to gain customer's loyalty by utilizing social media platforms. This research aims to investigate the mediating role of brand relationship quality in influencing the effect of characteristics of brand pages on brand loyalty. Besides, this research covers the gap of investigating the role of cultural values in influencing brand relationship quality and brand loyalty, since no research focuses on how cultural values influence customer's loyalty towards brands and their relationships with brands in social commerce environments. Results indicate that cultural values like individualism, and power distance positively influence the effect of brand relationship quality on brand loyalty, while indulgence negatively influences the relationship between brand relationship quality and brand loyalty. When it comes to managerial implications, the research suggests that brand marketers and managers need to maintain friendly relationships with their customers in order to attract their loyalty. Another implication for marketers and managers is that cultural values are so crucial in building up brand loyalty that it should not be ignored, they should consider how to retain customers with lower individualism scores and lower power distance scores, since they are less attractive in gaining brand loyalty in social commerce environments.

Keywords: social commerce; characteristics of brand pages; brand relationship quality; brand loyalty; cultural value.

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1. Introduction

The wave of globalization and economic integration have stimulated the explosion of e-commerce. Marketers and managers sensed commercial opportunities through social media platforms. Therefore, social commerce was born at the right moment. Stephen and Toubia (2010) define social commerce as “a marketplace which allow people involved in selling and purchasing products through social media”. With the booming emergence of social medias, more and more individuals and companies are involved in this lucrative marketplace. Companies and retailers have seen great business opportunities in online shopping environments. Emarketer (2014) predicts that in 2018, social commerce could bring America more than 49 billion dollars of business revenues! Academic studies show that basic characteristics like information quality, interactive communications, reputation and transaction security consist of social commerce traits (Weijun and Lin, 2007; Bart, Shankar, Sultan, & Urban, 2005; Kim & Park, 2013). Social commerce also brings out enormous benefits for companies like increases of trust and loyalty from customers and stimulation for commercial innovation (Marsden, 2010; Stephen & Toubia, 2010; Kim and Park, 2013). It is no wonder that companies are eager to keep strong relationships with their customers in social commerce environments, since it is important for merchants to use social activities to influence customer’s perceptions and purchase intentions. In the academic field, scholars have investigated the concept of brand relationship quality, which is defined as “the enduring relationship between customers and brands in order to stimulate passion, commitment and loyalty” (Huber *et al.*, 2010; Smit, Bronner & Tolboom, 2007). Studies have shown that brand relationship quality is a fundamental construct that makes customers put their personal feelings in brands and bring back these feelings in life, in both psychological and functional ways (Fournier, 1998). In the marketing fields, it is quite common to see brands open their official accounts through popular social media platforms (i.e. Instagram, Facebook, Twitter, YouTube, etc.) to better communicate with their customers and advertise their products.

Customers could see advertisements of the latest series of products through brand pages they are in favor of, make comments on these products and communicate with their friends by tagging them. For companies, their responsibilities include promoting products by posting pictures, videos and links online, interacting with customers and organizing social activities. Through this dynamic brand relationship, customers are more likely to gain affection and increase their loyalty toward brands.

Meanwhile, culture is seen as a complex concept in both the academic and business fields. For a long time, scholars have focused on national cultural values based on Hofstede's cultural dimension models, which assumes that individuals in one nation share same cultural values with others (Cohen, Pant, and Sharp, 1992). Standing on this point, Palumbo and Herbig (2000) found that in cross cultural contexts, brand loyalty was shown in different ways in different countries. In their research, companies in the UK chose to use coupons and promotions to attract customer's brand loyalty, while in Japan companies with high prestige and long histories got into Japanese customer's good graces. However, scholars like Yoo and Donthu (1998) found that cultural values could not be defined based only on national boundary lines, since individuals could learn and develop their own cultural values from books, media and online environments. Researchers are interested in investigating customers with great differences in cultural backgrounds, since Western cultures and Eastern cultures are quite different, which influence customers' perceptions and values directly or indirectly. Previous studies indicate that cultural values are important factors that influence the relationship between customers and brands. For instance, Lam (2007) investigated the relationship between Hofstede's individual based cultural dimensions and brand loyalty among Australian students. He found that individualism and uncertainty avoidance could lead to brand loyalty. Other scholars, like Zhang *et al.* (2014) found that Eastern customers are more brand loyal compared with Western customers, since Asian customers are collectivistic and long term oriented. In the marketing fields, it is essential for managers to concentrate on

customers who have different cultural values in order to better differentiate and segment global markets and set up rational marketing plans.

The current research is building on Zhang *et al.* (2016)'s study, his research explores how customers' loyalty will be influenced by social and self-factors of antecedents of brand relationship quality (See Appendix Table 2). With no research focusing on the relationship between characteristics of company's brand pages, brand relationship quality and brand loyalty in social commerce environments, the current research aims to discover the role of brand relationship quality in influencing characteristics of brand pages, company factors, and brand loyalty. Another main purpose of this research is trying to cover the gap in investigating the role of cultural values in influencing brand relationship quality and brand loyalty.

2. Literature review and hypotheses

2.1. Social commerce

In the development of the social commerce concept, there was a range of individual summaries about social commerce, while lacks a systematic and clear definition of social commerce. It was Yahoo website that first introduced 'social commerce' to the public in 2005 (Jascanu, 2007). Wang and Zhang (2012) define social commerce as "a state which combines both online and offline activities, and social media mediate its effects." Liang and Turban (2011) gives a clear generalization of social commerce, that is, it is one of the subsets of e-commerce, which could provide business transactions and social activities by utilizing social media as an intermedium. Besides, they believe that social commerce offers three basic attributes: 'social media platforms, online community interactions and involved business activities (Liang & Turban, 2011). Incremental online business opportunities have made companies target social commerce environments as a superexcellent medium to place advertisements. For instance, influential companies choose to set up brand pages on popular social media like Twitter, Instagram, Weibo and so on.

Shopify (2013) did a research on how many sales most popular social media platforms bring to business companies and it found that Facebook dominated most sales compared with other platforms like Vine, Instagram, Twitter and so on. It also discovered that Facebook had the highest conversion rate¹ (1.85%), while the second and the third had 1.16% (Vimeo and Youtube) (Shopify, 2013).

2.2. Social commerce research frameworks

In the academic field, scholars have provided several feasible frameworks that could be applied to studying social commerce. Liang and Turban (2011) summarize one framework based on two social commerce essential elements: social media and commercial activities. In their research, the authors mention that social commerce activities are composed of social media marketing events, enterprise, technology development and integrated management (Liang & Turban, 2011).

Wang and Zhang (2012) provided four dimensions to understand social commerce and its developmental history. These are as follows: people, managerial strategies, technology, and information. In this framework, the *people* dimension is defined as individuals, shoppers and social network users who hope to find comments and recommendations by utilizing social media. The *managerial strategies* dimension is defined as companies seeking business alliances by converging both online and offline business activities. Through cooperative managerial strategies, brand managers could integrate social branding based on customers' needs. The *technology* dimension explains the development of social commerce: IT technology stimulates the flourishing evolution of social commerce; the emergence of shopping websites and the functions that connect online and offline social business together. Wang and Zhang (2012) also denote that Facebook has triggered the famous phenomenon: 'F-commerce', which is aimed at integrating brands, build up brand pages, and provide business activities through the Facebook platform. Lastly, Wang and Zhang (2012)

¹ Conversion Rate: The rate that transferring customer visiting flows from online websites into purchase sales (Wikipedia, 2016).

predict the *information* dimension will be crowdsourcing based, which means marketers and customers could share information and co-create values through globalized Web 2.0 technologies.

Yadav *et al.* (2013) provide a contingent framework to explain the social commerce in marketing fields. In this research, the authors put forward two key viewpoints: first, computer mediated social environments (CMSES) create business values and stimulate customers to use social media to collect information; second, companies can change customers' attitudes towards certain products and purchasing decisions through computer mediated social environments. This contingent framework offers several parts. In the first place, companies have to provide certain products in the market, and social media is a useful medium for companies to transfer desired information to their customers. Second, features of social media platforms and products are shown as moderators to influence companies' efforts in social commerce environments. For instance, product features include the nature of products (necessities vs. luxury products), the purchase features (for personal use or public use; single or group purchase) and the value assessment (social evaluation); social media platform features contain type differences and connections with their community members. Lastly, triggered by a series of moderators listed above, companies could initiate potential outcomes from their customers. For example, customers will learn their needs and search for relevant information to support their thoughts. Furthermore, some customers may decide to buy products and trigger ripple effects by commenting and recommending products under social commerce environments.

Figure1: Research Model

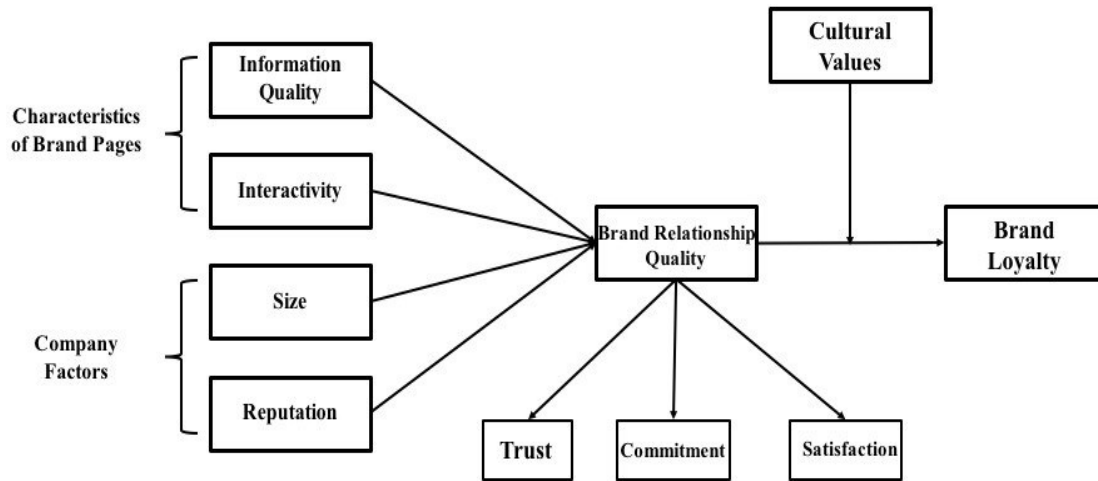


Table 1 indicates the overall model for this research. We will go through these key concepts like characteristics of brand pages (i.e. information quality, interactivity), company factors (i.e. size, reputation), brand relationship quality, brand loyalty, and cultural values and then propose our hypotheses.

2.3. Characteristics of brand pages in social commerce environments

Various studies have been conducted by scholars to detect characteristics of social commerce. Weijun and Lin (2011) offered an overall summary of social commerce characteristics, such as convergence and information quality, play important roles in influencing customer's decisions. Hsiao et al (2010) found that website's reputation and quality, and the integrity of social networks influence customer's trust about one website and thus effect their purchase decisions in social commerce. Based on previous studies, Kim and Park (2013) found that company's size, reputation, transaction safety, and communication were shown as effective social commerce factors that influenced customer's trust and purchase intentions. Previous studies indicate that main characteristics of brand pages may influence the relationship between customers and brands and therefore affect customers' loyalty. Therefore, this research will focus on the main characteristics of brand pages in social commerce environments: information quality, interactivity, company characteristics to see how brand relationships influence the effects of main characteristics of brand pages on

brand loyalty.

2.3.1. Information quality and brand relationship quality

Information quality is defined as “the extent to the accurate and timely information that company hopes to convey to its customers through online platforms.” (Kim, 2012). According to Agichtein et al.(2008), information quality in social media environment is the intrinsic content quality that company and customers hope to express during exchanging information progress. Liao *et al.* (2006) denote that companies which provide instant and high-quality information through online platforms more easily gain customer’s trust compared with companies that provide less timely and accurate information. In social commerce environments, customers hope to obtain accurate information from online merchants since they may have many questions about the companies’ products and services. If the companies provide sufficient information to solve these problems, then their customers may become more satisfied with and trust their brands. To some extent, it is the reciprocity process which benefits both companies and customers. Through favorable information providing process, the companies could obtain good brand relationships with their customers. In this way, information quality may positively influence brand relationship quality in social commerce environments.

Therefore, we propose that:

H1: In social commerce environments, information quality is positively related to brand relationship quality.

2.3.2. Interactivity and brand relationship quality

Traditionally, interactivity is defined as “the ability or the extent that users perceive, communicate and exchange information through online communication systems.” (Lee, 2000; Rice, 1984; Steuer, 1992). Scholars tend to provide

characteristics of interactivity by using different dimensions. For instance, in communication dimensions, interactivity has characteristics like collecting and summarizing information (Ha & James, 1998), providing feedback (Heeter, 1998; Levy, 1999; Wu, 2005) and trading through online transaction systems (Song & Zinkhan, 2008). In the media formation dimension, it could have enormous language settings, fonts, colors and backgrounds that attract different groups of customers (Ghose & Dou, 1998; Mcmillan, 2000); or it provides distinct search engines and links (Wu, 2005). Previous studies have confirmed that interactivity is an important antecedent of brand relationship quality, which influences the development of customer and brand relationship (Lee, 2005). Lee (2005) uses a parsimonious model and concludes that online interactivity stimulates customers to generate trust toward companies under mobile commerce environments. Other scholars like Yoon (2008) divide interactivity into different dimensions and test them separately in a relationship investment model, and find that interactivity indirectly influences relationship quality and contributes to behavioral loyalty in a positive direction. Kuo and Feng (2013) confirm that community interactivity leads to effective brand community commitment and positively contributes to oppositional brand loyalty by testing Taiwan automobile online communities. In this way, interactivity may positively influence brand relationship quality. Therefore, it is proposed that:

H2: In social commerce environments, interactivity is positively related to brand relationship quality.

2.4. Company Factors

2.4.1. Company's reputation and relationship quality

Traditionally, scholars define company's reputation from two main aspects: economic or institution perspectives. In the economic aspect, company's reputation is defined as the overall expectations towards given organizations (Weigelt & Camerer, 1988); in the institutional aspect, company's reputation is defined as the overall

perceptions from global stakeholders (Fombrun & Shanley, 1990; Keh & Xie, 2009). If companies obtain great wellness and reputation in relevant market fields, they are easy to be known by customers through online social media platforms. For instance, most customers would recognize sports brands like Nike and Adidas easily when compared with less famous brands like Anta if they see relevant advertisements on social media platforms. Kim (2012) studied different antecedents of brand trust in social commerce environments and found that company's reputation has significant positive influences on brand trust in social commerce environments. Selnes (1993) also indicates that brand reputation is an important antecedent of customer loyalty. What's more, Keh and Xie (2009) imply that relationship quality (reflected in such constructs as customer trust and commitment) are direct outcomes of corporation's reputation. In this way, company's reputation is so important that it plays a key role in influencing brand relationship quality in social commerce environments. Therefore:

H3: In social commerce environments, companies' reputation is positively related to brand relationship quality.

2.4.2. Company's size and relationship quality

Company size in social commerce environments is defined as the subjective impression about company's size in customer's perspective (Kim & Park, 2013). It is a truth that customers are more likely to be attracted by companies with large sizes under social commerce environments, since traditionally these companies have better social influences and financial forces to advertise their products by using social media platforms. In the academic field, researchers investigate mostly the interactive relationship between customers and firm's trust. Scholars like Jarvenpaa (1999) states that company size is shown as a crucial factor imposing effects on customers' trust. Also, Yao Bin *et al.* (2006) introduce an e-commerce model implying that company size is shown as an important factor of websites positively influencing trust. What's more, Kim & Park (2013) find that in social commerce environments, company's size

positively influences customer's trust towards firms. Since trust is an effective component of brand relationship quality, it is possible to propose that company size may positively influence relationship quality. In this way, we propose that:

H4: In social commerce environments, company size is positively related to brand relationship quality.

2.5. Brand relationship quality

Relationship marketing has been investigated thoroughly in both business fields and academic fields in the past twenty years due to its considerable importance. Liang *et al.* (2011) mention that relationships between customers and brands are so important in the social commerce field that they need great attention from scholars, since they are the foundations of social commerce. Morgan and Hunt (1994) first gave a clear definition of relationship marketing: "companies utilize relationship marketing as a useful method to intend to provide long term and steady relationships with their customers, thus gain their favorable impressions." Bulgar (1999) claims that the main intention of relationship marketing is to provide sufficient motivation and stimulation for customers. Many scholars have studied factors that make relationship marketing stand out through business strategies. For instance, Buttle (1999) denotes that intelligent customer choices and segmented markets are critical factors; Sharma *et al.* (1999) mention that relationship marketing helps companies gain competitive advantages. Hennig-Thurau *et al.* (2002) denote brand relationship quality as a complex multi-construct that contains important components influencing relationships between companies and customers. Hennig-Thurau *et al.* (2002) divide studies related to determinants of brand relationship quality into two groups: "univariate" vs. "multivariate". In the first group, one single construct could generate prominent influences on relationship marketing; in the second group, several constructs mutually influence the outcome of brand relationship quality. Although there are many influential components of relationship quality studied by scholars, trust, commitment,

and satisfaction have become the most valuable constructs (Palmatier *et al.*, 2006). Crosby *et al.* (1990) state that relationship quality is composed of many aspects, while it could be summarized as the trust and satisfaction to certain people, products, and their related companies. According to this study, higher relationship quality between companies and customers indicates customers obtain higher levels of satisfaction and trust to these companies. Doney and Cannon (1997) define 'trust' as 'high degree of credibility and interest in devoting to their enthusiasm.' Among definitions of trust, confidence and reliability account for the most important concepts (Garbarino and Johnson, 1999). Commitment is defined as 'the desire to maintain a long term successful relationship' (Moorman, Zaltman & Deshpande, 1992; Morgan & Hunt, 1994). Garbarino and Johnson (1999) summarize and use four facets to describe commitment: personality, psychological dependence, loyalty and potential welfare in the long term. Anderson *et al.* (1994) provide a clear definition of overall satisfaction, that is, "a thorough evaluation of certain goods or services according to past shopping or consuming experiences."

2.6. Social media based brand loyalty

In the past fifty years, scholars and companies studied the importance of maintaining customers' loyalty towards brands. In the academic field, most scholars came to an agreement that brand loyalty is divided into two major dimensions: behavioral loyalty and attitudinal loyalty. Newman and Werbel (1973) investigate the customer's perspective and define brand loyalty as the repetitive purchasing behavior of one brand, without taking other brands into account at the same time. Similar to Newman and Werbel's viewpoint, Oliver (1999) defines brand loyalty as: "the great zeal to pay close attention to products or services with high probabilities to repurchase from the same brand." On the contrary, Day (1976) believes that besides repurchasing behaviors, true loyalty also includes customer's favorable attitudes towards one brand. In the long term, customers will keep continuous attention to certain products from

one company, and they have their preferences even when they are facing other substitutive brands. Bloemer and Kasper (1995) differentiate brand loyalty into two types: true loyalty and spurious loyalty. In their research, true loyalty ties closely to brand commitment and consumers show their preference to certain brands when deciding to purchase from alternative brands; whereas, spurious loyalty only share little difference with true loyalty, that is, it lacks frequent concerns towards certain brands that consumers may choose another brand easily (Bloemer & Kasper, 1995). Oliver (1999) summarize four phases of loyalty: cognitive, emotional, behavioral and actional. In the first phase, cognitive loyalty indicates that customers have preferences among alternative brands according to the information issued by different brands. Emotional loyalty refers to the positive affection or attitudes stimulated by certain brands. Customers who belong to cognitive and emotional loyalty could switch to other brands easily since they lack a tight connection with the preferred brands. In the third phase, customers who belong to behavioral loyalty are more dependent on brands since they are willing to repurchase from brands they prefer. In the last phase, customers with actional loyalty would transfer the motivation of repurchase into practical actions.

Thanks to the rapid expansion of the Internet, more and more companies have developed their e-commerce through social media platforms so that they could strengthen their friendly relationships with customers and earn good impressions and trust. In the academic field, Laroche *et al.* (2013) utilizes a unique and typical model to confirm that social media based brand communities could positively influence customers and enhance brand trust and brand loyalty. Erdoğan and Cicek (2012) confirm that effective social media campaigns issued by companies make customers more brand loyal in Turkey. In this research, scholars find that customers who engage actively in social activities and information sharing would gain more satisfaction about brands. Zhang *et al.* (2016) investigate 12 important papers which focus on building up brand loyalty in brand community environments and they find that most

research emphasizes key antecedents of brand loyalty, intend to detect how antecedents like commitment, trust, participation would influence customer's attitudes towards certain brands and generate behavioral loyalty. However, none of these studies investigate how relationship quality influences customer's loyalty towards brands (Zhang *et al.*, 2016). Besides, although most research pay much attention to standing on customers' viewpoints and investigate the relationship between brand community and brand loyalty, it is also fundamental to draw attention to company characteristics since they are quite noteworthy in influencing their customers by utilizing brand page advertisements under social commerce environments. Therefore, it is critical to investigate the relationships among company brand pages, relationship quality, and brand loyalty.

2.7. Brand relationship quality and social media based brand loyalty

There is no doubt that through studies of brand relationship quality, many scholars find it brings out positive outcomes. For instance, Pentina *et al.* (2013) conducted research on the importance of brand relationship quality and its potential outcomes by using social media. They found that customers are favorably disposed of recommending brands to their friends and families on social media websites like Facebook and Twitter. Algesheimer's (2005) shows that relationship quality positively influences brand loyalty in car brand communities. Kim and Cha (2002) found that in the hotel industry, relationship quality is positively related to word of mouth behaviors and purchase sharing phenomenon. Zhang *et al.* (2011) found that relationship quality contributes to customer repurchase intentions when customers and companies are involved in e-commerce environments. Other scholars like Crosby (1990) and Zhang (2008) found that positive outcomes like loyalty behaviors and incremental sales emerge through favorable relationship qualities between customers and companies. It is true that both companies and customers could benefit from brand relationship marketing. According to Palmatier *et al.* (2006), customers and

companies cooperate with each other and exchange useful information in order to strengthen business relationships through relationship marketing activities. Customers become more loyal and continually trust companies, and at the same time, companies achieve excellent performance. Huang *et al.* (2014) investigated the mediating role of brand relationship quality and found that its two main dimensions: ‘attitudinal attachment’ and ‘sense of community’ positively affect brand loyalty (in both behavioral and attitudinal dimensions). Laroche *et al.* (2016) also provided a creative and powerful model to confirm that based on social media environments, brand relationship quality is shown as an effective mediating role, which positively strengthens the relationship between the brand community and the brand.

In social commerce environments, brand relationship quality is also playing an important role in influencing customer loyalty. For instance, through popular social media platforms like Instagram, Facebook and Weibo, brands could post social activities and useful information to attract customers’ attention. Customers develop favorable relationships with brands through interacting and responding on brand pages, therefore, they are more likely to trust and be satisfied with brands. According to Zhang and Bloemer (2008), trust, commitment, and satisfaction have positive relationships with loyalty, which indicates the significant role of relationship quality in dealing with customer and brand relationships. Although several studies have investigated the relationship between relationship quality and brand loyalty, there is still an interest in detecting them in social commerce environments. The reasons are as followed: first and foremost, social commerce is expanding fiercely in recent years, which means companies and marketers seek it as a lucrative place to boost online business opportunities. In research fields, it would be interesting to see the effect of brand relationship quality on brand loyalty is strengthened or weakened in social commerce environments. Secondly, we hope to keep this hypothesis in order to see how cultural values would influence the direction between brand relationship quality and brand loyalty. Therefore, we propose our hypothesis in this way:

H5: Brand relationship quality is positively related to brand loyalty in social commerce environments.

2.8. Cultural values and brand loyalty

Globalization has made the world become a tighter unit, which provides great potential opportunities for multinational companies dealing with business issues. In the business field, companies have sensed the significance of business values that cultures could bring. Therefore, they are more willing to engage in studying local cultures and make localized marketing adjustments. In the marketing and advertising fields, marketers and managers pay more attentions to western and eastern cultural differences when launching advertising events globally. In the research fields, scholars are also interested in how cultural values could influence customer decisions and brand relationships. These researches shed lights on offering useful advice for marketers who aim at expanding multinational markets. Therefore, it is quite critical to review previous studies targeted at cultural values.

When it comes to cultural concepts, there is a no denying truth that scholars consider it as a complex term (Hofstede, 1980; Lam, 2007). Whether in the psychological or in the marketing fields, Hofstede's cultural values theory has been widely used by scholars (Steenkamp, 2011). Hofstede (1991) defines culture as "a kind of spiritual programming that distinguish one group people from the others". Hofstede conducted his research and derived six meaningful cultural dimensions through fifty-three countries worldwide (Hofstede, 1991). Currently, his research is widely used among scholars since it is quite insightful and provides significance for scholars to differentiate subcultures and nation cultures (Liu *et al.*, 2000). Hofstede's six dimensions of national cultures are: Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long Term Orientation, and Indulgence (Hofstede, 2001). Shown as histograms with scores (ranges from 0 to 100) based on Hofstede's global research, these six dimensions clearly distinguish countries with different cultural

values. Most scholars used Hofstede's cultural dimensions to measure the cultural differences in individual levels, since it is of great importance and significance in this academic sector. In scholars' angle, it is not rigorous to research cultural values of customers based on countries, since there could be a large cultural diversity within any one country (Yoo, 2009). For instance, Laroche (2003)'s research showed that Canadian people who speak English share more common characteristics with English culture while French Canadians have similar characteristics with French cultures due to historical and cultural reasons. Besides, research has found that individuals often have more incentives of their personal cultural orientations when compared with country based cultural values.

Scholars have investigated the role of cultural values on brands. For instance, Lam (2007) tested the relationship between four of the dimensions of Hofstede's cultural values and brand loyalty by using Australian respondents, he found that cultural values do influence brand loyalty to a great extent; customers with high individualism and high power distance scores have more proneness to brand loyalty compared with customers with low scores. Other scholars like Hur and Kim (2015) investigated the effect of cultural dimensions (i.e. individualism, masculinity, uncertainty avoidance and long-term orientation) on customer and brand relationships by comparing Chinese and Indian consumers. This research claim that customers with higher masculinity and individualism scores tend to have more brand trust compared with customers with lower scores. Yoo (2009) investigated Korean and American customers and found that individuals have their own cultural orientations, which thus influence customer's brand loyalty and brand equity. This research aims to investigate the role of individually based cultural values in influencing brand relationship quality and brand loyalty.

Individualism

Individualism refers to the proneness to considering only themselves instead of other social members (Hofstede, 1980). Individualistic people care more about

themselves and personal goals instead of putting themselves in social spheres.

Oppositely, collectivism is defined as “the preference of taking other social members into account when dealing with issues.” Collectivistic people seek cooperation, pursue harmonious relationships, and prefer to stay friendly with others (Hui,1984). Triandis (1995) claims that individualistic people mostly take personal goals seriously while collectivistic people are more likely to put themselves on group based situations, and take groups’ profits as granted. Mooji and Hofstede (2011) also found that in collectivistic society, people often link their self-esteem with others and are more willing to be shown as an interdependent entity.

Previous studies have confirmed that individualism vs. collectivism influence customer’s purchase choices and loyalty towards suppliers to a great extent (Son, 2013). Lam (2007) confirms that customers with high individualism scores tend to become brand loyal, since customers with high individualism scores could stick to their preference without the disturbance of stereotypical thinking from their social groups. However, no research has targeted the moderating effect of cultural dimensions on influencing the relationship between brand relationship quality and brand loyalty. Therefore, in this research, it is assumed that individualism will moderate the effect of brand relationship on brand loyalty:

H6: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of individualism

Masculinity

Masculinity is defined as the desire for obtaining success and ambition of gaining goals. According to Hofstede (1980), countries with high masculinity scores are usually more ambitious and gain awareness of competition. On the contrary, Femininity refers to caring for other social members and seeking cooperation instead of fierce competition. A less masculine society pays more attention to gender roles

(Hofstede,1980). For instance, people with lower masculine scores tend to focus on people and agree on traits of interdependence, peace, and amity.

When it comes to the relationship between masculinity and brand loyalty, Lam (2007) found that people who score high in masculinity have more controls about brand choices made by themselves. In this way, they are less likely to be influenced by external environments (i.e. marketing activities of competing brands). Another study conducted by Hur and Kim (2015) indicate that Chinese customers have more brand trust compared with Indian customers in the smart phone markets, since China has much higher masculinity scores than India. These studies suggest that masculinity is an effective moderator, which may influence the relationship between brand relationship quality and brand loyalty. Therefore, it is suggested that:

H7: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of masculinity.

Power distance

Power distance is the extent that society could treat and deal with unequal issues that happened on its social members (James, 1995). Basically, if one country scores highly, it is indicated that a hierarchical society exists and under this situation, people more easily to accept inequalities (Hofstede, 1980). On the contrary, people who come from countries with lower power distance scores are more likely to fight for their deserved equal rights. Chang and Chieng (2006) indicated that in a society with high power distance scores, customers are more likely to hide their attitudes towards brands, since they usually talk first about the utilities of products. In that way, even customers with high power distance scores have their own preferences towards certain brands, they may discard for practical reasons. Traditionally researchers find strong ties between power distance and self-control: societies with high power distance scores constrain their desires and impulsive purchase behaviors (Zhang, 2010). In that

research, the author also indicates that society with low power distance scores may have higher impulsive buying behaviors since they have less self-control. Another study conducted by Zhang (2011) shows that impulsive buying activities negatively influence customer's loyalty toward brands. These studies shed lights on that power distance may positively influence brand loyalty, since customers with high power distance tend to restrain their desires on brand choices and retain loyalty towards brands. Another study conducted by Eisingerich and Rubera (2010) showed that customers with high power distance scores gain more brand commitment from companies which are customer oriented. Therefore, power distance is shown as a moderator to influence brand relationship quality and customer's loyalty towards brands. Based on these researches, it is assumed that:

H8: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of power distance.

Uncertainty avoidance

Uncertainty avoidance refers to the unwillingness to facing uncertainty in the future and worries about dealing with indeterminacy. To some extent, countries with high scores of uncertainty avoidance usually mean people are afraid of unknown quantities, so that they need beliefs and faiths to become their mental supports. Besides, people score high in uncertainty avoidance usually stick to standardized processes and withstand large changes. To a great extent, they have strong tendencies to risk aversion. In contrast, people with low uncertainty avoidance scores are willing to accept challenges (Hofstede, 1980). According to Asamoah (2016), it is more difficult for customers who score high in uncertainty avoidance index to accept new brands and they are more accustomed to brands with which they are already familiar. Erdem *et al.* (2002) found that customers who had high scores of uncertainty avoidance had more brand trust. In Reimann *et al.* (2008)'s study, customers who

scored high on uncertainty avoidance had more satisfaction in service fields. Lam (2007) also claims that people with high uncertainty avoidance scores are prone to brand loyalty. In this way, we propose that uncertainty avoidance may act as a moderator to influence the effect of brand relationship quality on brand loyalty.

H9: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of uncertainty avoidance.

Indulgence

Indulgence refers to the desire to enjoy the moment and return to human nature instead of being restricted by social contracts. On the contrary, restrained people hold the view that life should be outlined. Therefore, it is difficult for people who live in restrained societies to accept indulgent attitudes. Countries with high scores of indulgence do not mean that they do not respect social norms; it is better to say that they look up to human's freedom and welcome open-minded cultures. Take China as an example. China scored only 24 in this dimension, which means Chinese culture is kind of 'restricted' to mundane conventions. Most Chinese people choose to obey social standards due to the fear of being discussed by social members if they did something that violates social norms. In this way, they have to hide their personal desires of indulgence to conform to a united standard. Oppositely, in typical western cultures like Canada, which scored 68, indicating Canadian people are typically indulgent: they choose to have fun at the moment and less concerned about social norms and labels that other people tag by using standardized conventions. It is no wonder that western countries have higher indulgence scores, since liberal concepts are rooted in their cultures. According to Hofstede's research (2010), indulgent societies usually have higher crime rates due to fewer restrictions on regulation. From the other side, indulgent people are more optimistic compared with less indulgent people, since they could do what they want to some extent.

People who score high in indulgence indicate that they could choose their preferred brands with great freedom since they do not have to be constrained by social norms. In that way, these customers may switch to different brands easily according to their favors. Inversely, people who score low in indulgence may have fewer brand choices and preferences, this is because they may sacrifice their gratifications in order to meet social standards. Therefore, even though these customers have their favorite brands, they may not choose these brands to restrain their desires. In this way, it is proposed that:

H10: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with lower level of indulgence.

Long term orientation

Long Term Orientation refers to the determination to face up future challenges. Countries that obtained high scores on this item symbolize that people in that country choose to abandon current profits to gain prospective success (Grimsley, 2011). On the contrary, short term orientation means people concerned about current fulfillments rather than future accomplishments. For instance, China scored 87 in this item, indicating Chinese people are more pragmatic, they pay much attention to long term goals and could sacrifice current interests if long term goals are lucrative. Chinese people like depositing their money into banks, which could bring them a strong sense of security. When compared with western people, Chinese people are less likely to have loans, this is because loans make them believe they are spending future's money and once they come into old ages, they will have nothing but loans.

In individual levels, long term orientation is defined as the acceptance of sacrificing short term goals or materials in order to achieve long-term success (Hofstede, 1980). Bearden et al (2006) define long term orientation as the culture value that focus on continuous time state, which means people concern not only for the past events but also for the future goals. Traditionally, people who are long-term

oriented share common characteristics like persistence, appreciation of orders and yearn for thrifts. On the contrary, people with short term orientated care more about leisure time and freedom (Hofstede & Minkov, 2010). Scholars have conducted research on investigating relationship between long term orientation and brand loyalty. Most research agree on that customers with higher long term orientation scores tend to become more brand loyal, since they persist on the long term goals and resist to change (Zhang et al, 2014; Lowe & Corkindale, 1998). Hur et al (2015) proposes that customers with higher long term orientation scores are more brand loyal when compared with customers with lower scores. These researches indicate that long term orientation may show as a moderator that positively influence the relationship between brand relationship quality and brand loyalty. In this way:

H11: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of long term orientation.

Table1: Summaries of Hypotheses

H1: In social commerce environments, information quality is positively related to brand relationship quality.
H2: In social commerce environments, interactivity is positively related to brand relationship quality.
H3: In social commerce environments, companies' reputation is positively related to brand relationship quality.
H4: In social commerce environments, company size is positively related to brand relationship quality.
H5: Brand relationship quality is positively related to brand loyalty in social commerce environments.

Table1: Summaries of Hypotheses(Continued)
H6: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of individualism
H7: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of masculinity.
H8: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of power distance.
H9: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of uncertainty avoidance.
H10: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with lower level of indulgence.
H11: In social commerce environments, the positive effect of brand relationship quality on brand loyalty increases with higher level of long term orientation.

3. Research methodology

3.1. Research procedures

Founded in 2006, Twitter has become one of the most widely used social media platform around the world. On this website, users could follow users or celebrities that they are interested in, tweet and retweet things to express their opinions. In 2011, Twitter claimed that it had more than 100 million users and 50 million active users that used Twitter every day (Taylor, 2011).

Although Weibo was set up in 2009, it has become one of the most valuable websites. It shares similar functions with Twitter while it also develops more localized functions that cater to Chinese customers. In China, Weibo is seen as the most popular social media platform and according to Wikipedia (2017), more than 220 million people are using Weibo to subscribe homepages that they are interested in, express their feelings by uploading pictures, emoticons and interacting with other users. In

this research, target respondents are those who have followed popular brand pages on Twitter and Weibo (e.g., Samsung, and Nike). To make it specific, this research concentrates on Canadian respondents that follow given brand pages on Twitter and Chinese respondents who follow the same brand pages on Weibo, this is because people from these two countries have great differences in cultural values and behavioral orientations. There are several reasons explain why Weibo and Twitter are chosen for this research: In the first place, these two social media platforms are quite popular in those two countries, companies could use their brand pages to interact with their customers and exchange their advertisement information along with opinions greatly by utilizing these two popular social media applications. Secondly, due to official and practical reasons, currently Twitter is blocked by Chinese government, which means Chinese customers could not use Twitter normally. Thirdly, Both Twitter and Weibo share common characteristics: for instance, both Twitter and Weibo allow users to express themselves within the limit of 140 characteristics; also, both Twitter and Weibo offer great freedom for users to follow companies, organizations, and personal users that they are interested in. From the other hand, Weibo is quite different from Twitter, especially in business fields. For example, both international companies and small business companies could utilize micro topics to advertise themselves and put them on hot topic search rankings, while Twitter does not have this function. Weibo also allows users to find hot topics through the separated webpage called ‘board of fame’, while Twitter users have to search hot topics by themselves.

Before the standardized survey was distributed, a pretest was conducted to ensure the good reliability and validity of all scales chosen for the standardized questionnaire. Besides, the pretest also helped to find the most 10 suitable brand pages chosen on Twitter and Weibo. For instance, in the pretest, it was assumed that Dell would be one of the most popular brands both on Twitter and Weibo. However, the result of the pretest showed that very few people chose Dell brand. Therefore, Dell

was replaced by Huawei, a famous Chinese telecommunication company that specializes in smart phones and tablets.

To get the suitable respondents, this research used CrowdFlower, a platform that allows researchers to attach designed Qualtrics's URL and then collect the desired data within a short period of time. Before the standardized questionnaire was distributed, respondents had to ensure that they were over 18 years of old and entering the questionnaire means that they agree with the consent form at the very beginning of the questionnaire. To validate the quality of the questionnaires, at the beginning of the questionnaire, a screening question was shown to ensure that respondents have a valid Weibo or Twitter account. After filling out several questions about the respondents' basic information, respondents were asked to choose one out of ten brands that they mostly followed on Weibo or Twitter. Then respondents needed to answer whether they are followers of this brand on Weibo/ Twitter. If they chose No then they were excluded out of this questionnaire since these participants were not considered as our target respondents.

3.2. Measurements

In this research, all scales were adopted from previous studies, which are well established. To measure brand loyalty, five items were chosen from Jang (2008)'s and Bobâlcă (2012)'s studies. To measure brand relationship quality, this research chose 9 items that adapted from Liang (2011)'s research to measure trust (3 items), commitment (3 items) and satisfaction (3 items) separately. Similar to previous studies, 4 items were chosen from Jang *et al.* (2008) to measure information quality and 3 items to measure interactivity. To measure companies' characteristics, this research used 5 items from Kim and Park (2013), who adapted their items from Doney (1997) and Veloutsou (2009) to measure size (2 items) and reputation (3 items) in marketing's angle. Last but not least, this research used 23 items from Yoo (2011)'s research to measure cultural dimensions: Power distance (5 items), Individualism (5

items), Masculinity (4 items), Uncertainty avoidance (4 items) and Long term orientation (5 items). To measure the newest cultural dimension indulgence, this research chose to use 8 items from Laroche's working paper. All items were measured by five-point Likert scale: 1= "strongly disagree" and 5= "strongly agree". All items to measure cultural values are based on individual levels instead of national levels.

4. Results

4.1. Pretest

4.1.1. Reliability

The pretest was conducted to ensure that the good reliability and validity of the standardized questionnaire. In the pretest, we collected data from CrowdFlower. Respondents who fully participated in the pretest questionnaire received monetary incentives. In all, 80 valid respondents participated in this pretest (44 Canadian respondents (55%) for the Twitter questionnaire and 36 respondents (45%) for the Weibo questionnaire). In this sample, 49 (61.3%) were male respondents and 31 (38.8) were female respondents. The majority of our respondents belonged to 18-25 age group (50% for '18-25' age group, 15% for '42-49' age group, 13.8% for '34-41' age group, 11.3% for 'above 50' age group and 10% for '18-25' age group). Pretest also showed that 37.5% of our respondents were bachelors, 36.3% had the education level of college, 21.3% were masters and 5% belonged to high schools. When it comes to the most frequent brand that respondents followed on Twitter and Weibo, Amazon was the most popular company (20%), the second was Nike (16.3%), with Starbucks next (15%), and Samsung (13.8%), McDonald's (11.3%), Adidas (8.8%) and Huawei (8.8%), IKEA (3.8%), H&M (1.3%) and Zara (1.3%). All scales were measured on five-point Likert scales ranging from 'Strongly disagree' to 'strongly agree'. This pretest used SPSS (version 24) to perform statistical analyses. To measure the reliability, it used Cronbach's α , which implies the internal consistency of scales. In research fields, it is widely accepted that 0.7 or higher of Cronbach's α

could indicate the good quality of measuring the same construct (Gliem, 2003). The following table shows Cronbach's α results of each measured constructs. As we can see that all constructs were acceptable (ranging from 0.70-0.86) except for construct size (0.67) and long term orientation (0.53). Although these two constructs may indicate the low reliability in this research, we want to keep them as they are established scales from previous studies.

Table2: Constructs, Citations and Cronbach's α

Constructs	Citation	Used items	Cronbach's α
Brand Loyalty	Jang (2008) and Bobâlcă (2012)	5	0.84
Trust	Liang (2011)	3	0.86
Commitment	Liang (2011)	3	0.70
Satisfaction	Liang (2011)	3	0.84
Information Quality	Jang et al (2008)	4	0.75
Interactivity	Jang et al (2008)	3	0.85
Size	Kim and Park (2013)	2	0.67
Reputation	Kim and Park (2013)	3	0.83
Power Distance	Yoo (2011)	5	0.81
Individualism	Yoo (2011)	5	0.76
Masculinity	Yoo (2011)	4	0.78
Uncertainty Avoidance	Yoo(2011)	4	0.75
Indulgence	Laroche (2017) working paper	8	0.83
Long Term Orientation	Yoo(2011)	5	0.53

4.1.2. Validity

KMO is used to test whether the sampling is adequate for research model. According to Kaiser (1974), the minimum value of KMO should be 0.5. If the value of KMO is greater than 0.8, than it means this sampling is adequate and suitable for factor analysis. In this pretest, the KMO is 0.828, as shown in the following table, indicates it is suitable for structure detection. Another important indicator is Bartlett's test of sphericity, which shows the relationship of variables in the research model.

Table3: KMO and Bartlett's test results

KMO and Bartlett's Test^a		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.828
Bartlett's Test of Sphericity	Approx. Chi-Square	770.328
	df	91
	Sig.	.000

4.2. Main study results

In all, we collected 688 valid questionnaires from CrowdFlower, 335 belonged to Canadian respondents and 353 were from Chinese respondents. The following table explains the basic demographic information.

Table4: Sample Demography (N=688)

		Frequency	Percent
Gender	Male	463	67.3
	Female	225	32.7
	Total	688	100
		Frequency	Percent
Age	18-25	87	12.6
	26-33	191	27.8
	34-41	300	43.6
	42-49	60	8.7
	>50	50	7.3
	Total	688	100
		Frequency	Percent
Nationality	Chinese	353	51.3
	Canadian	335	48.7
	Total	688	100
		Frequency	Percent
Education	High school	56	8.1
	College	154	22.4
	Bachelor	175	25.4
	Master	296	43
	Doctor	7	1
	Total	688	100
		Frequency	Percent
Most frequent brand followed	Nike	53	7.7
	Samsung	275	40
	Amazon	117	17
	Adidas	31	4.5
	Huawei	41	6
	Starbucks	76	11
	Zara	8	1.2
	McDonald's	50	7.3
	IKEA	28	4.1
	H&M	9	1.3
	Total	688	100

In this research, the model was split into two main parts in order to better analyze the mediation and moderation effects. In the first part, it mainly focused on testing how brand relationship quality mediates the effect of characteristics of brand pages (i.e. information quality and interactivity), company's size and reputation on brand loyalty. In the second part, it concentrated on the moderating effect of cultural values, which influences the relationship between brand relationship quality and brand loyalty.

4.2.1. The mediation effects

This research uses multiple linear regression (SPSS version 24) to execute the mediation effect of brand relationship quality. According to Baron & Kenny (1986), it

should take four steps to verify the mediation effect: (1) there is a significant effect between independent variables (information quality, interactivity, size, and reputation) and the dependent variable (brand loyalty); (2) there is a significant effect between independent variables and the mediator (brand relationship quality); (3) there is a significant effect between the mediator and the dependent variable; (4) after controlling the mediator, the significant effect of independent variables on dependent variable is reduced (significant results: partial mediation effect) or disappeared (non-significant results: full mediation effect), thus proving the mediation effect.

To detect the mediating role of brand relationship quality in influencing information quality and brand loyalty, the first step indicated positive and significant direct effect of information quality on brand loyalty ($\beta=0.795, p=.000$). Step two was to test the effect of information quality on brand relationship quality: there is a positive and significant effect of information quality on brand relationship quality ($\beta=0.808, p=.000$). Therefore, H1 was supported. Step three was used to test the effect of brand relationship on brand loyalty ($\beta=0.882, p=.000$), which confirmed H5. Step 4 was used to test the mediation effect of brand relationship quality. The result showed that when brand relationship quality was controlled ($\beta=0.689, p=.000$), the effect of information quality on brand loyalty still remained significant ($\beta=0.238, p=.000$), indicating that brand relationship quality is shown as the partial mediating role in effecting the relationship between information quality and brand loyalty (Table 4).

Table5: The mediating effect of brand relationship quality in influencing information quality and brand loyalty

		Path	Beta	β	p
Step1	information quality → brand loyalty	path c	.735	.795	.000
Step 2	Information quality→ brand relationship quality	path a	.705	.808	.000
Step 3	brand relationship quality→ brand loyalty	path b	.935	.882	.000
Step 4	information quality, brand relationship quality →brand loyalty	path c'	.220	.238	.000
		path b	.731	.689	.000

We replicated the analysis of the mediating role of brand relationship quality in influencing the relationship between interactivity and brand loyalty. The results indicated a positive and significant effect of interactivity on brand loyalty ($\beta=0.753$, $p=.000$), a positive and significant effect of interactivity on brand relationship quality ($\beta=0.753$, $p=.000$). Therefore, H2 was supported. There was also a positive and significant effect of brand relationship on brand loyalty ($\beta=0.882$, $p=.000$). However, after the brand relationship was controlled ($\beta=0.726$, $p=.000$), the effect of interactivity on brand loyalty remained significant ($\beta=0.207$, $p=.000$), indicating that brand relationship quality acted as a partial mediation role in influencing interactivity and brand loyalty. (Table 5)

Table6: The mediating effect of brand relationship quality in influencing interactivity and brand loyalty

		Path	Beta	β	p
Step1	interactivity → brand loyalty	path c	.509	.753	.000
Step 2	interactivity→ brand relationship quality	path a	.480	.753	.000
Step 3	brand relationship quality→ brand loyalty	path b	.935	.882	.000
Step 4	interactivity, brand relationship quality →brand loyalty	path c'	.140	.207	.000
		path b	.769	.726	.000

The analysis of the mediating role of brand relationship quality influencing reputation and brand loyalty is similar to previous two. The results indicated a positive and significant effect of reputation on brand loyalty ($\beta=0.759$, $p=.000$), a positive and significant effect of reputation on brand relationship quality ($\beta=0.829$, $p=.000$). Therefore, H3 was supported. There was also a positive and significant effect of brand relationship on brand loyalty ($\beta=0.882$, $p=.000$). However, after the brand relationship was controlled ($\beta=0.807$, $p=.000$), the effect of reputation on brand loyalty remained significant ($\beta=0.09$, $p=.000$), indicating that brand relationship quality acted as a partial mediation role in influencing reputation and brand loyalty (Table 6).

Table7: The mediating effect of brand relationship quality in influencing reputation and brand loyalty

		Path	Beta	β	p
Step1	reputation → brand loyalty	path c	.543	.759	.000
Step 2	reputation → brand relationship quality	path a	.559	.829	.000
Step 3	brand relationship quality → brand loyalty	path b	.935	.882	.000
Step 4	reputation, brand relationship quality → brand loyalty	path c'	.064	.090	.000
		path b	.856	.807	.000

Again, we replicated the analysis of brand relationship quality in the effect of size and brand loyalty. The results indicated a positive and significant effect of size on brand loyalty ($\beta = 0.692, p = .000$), a positive and significant effect of size on brand relationship quality ($\beta = 0.718, p = .000$). Therefore, H4 was supported. There was also a positive and significant effect of brand relationship on brand loyalty ($\beta = 0.882, p = .000$). However, after the brand relationship was controlled ($\beta = 0.793, p = .000$), the effect of size on brand loyalty remained significant ($\beta = 0.123, p = .000$), indicating that brand relationship quality acted as a partial mediation role in influencing size and brand loyalty (Table 7).

Table8: The mediating effect of brand relationship quality in influencing size and brand loyalty

		Path		β	p
Step1	size → brand loyalty	path c	.764	.692	.000
Step 2	size → brand relationship quality	path a	.747	.718	.000
Step 3	brand relationship quality → brand loyalty	path b	.935	.882	.000
Step 4	size, brand relationship quality → brand loyalty	path c'	.136	.123	.000
		path b	.841	.793	.000

4.2.2. The moderation effects

To test the moderating effect of cultural values in influencing the relationship between brand relationship quality and brand loyalty, we chose to use multiple linear regression in SPSS (version 24). In this model, cultural values were used to test whether there is an interaction effect between brand relationship quality and brand loyalty. Therefore, brand relationship quality is an independent variable and brand loyalty is a dependent variable. To avoid the multicollinearity problem, both independent variable (brand relationship quality) and moderators (individualism, masculinity, power distance, uncertainty avoidance, and indulgence) were standardized. We decided to test the moderating effect of six cultural dimensions separately.

To test the moderating role of individualism in influencing the relationship between brand relationship quality and brand loyalty, we created a third interacting variable by multiplying the variable individualism and the variable brand relationship quality, and we called it the *moderator individualism*. A significant overall regression was found ($F(3,684) = 918.967, p < .000$), with an R^2 of .801 and adjusted R^2 of .800).

Research results showed that individualism was a strong interaction that influenced the relationship between brand relationship quality and brand loyalty, since it was positively significant ($\beta = 0.110$, $p = 0.000$). Therefore, H6 was supported, indicating that customers with higher individualism scores will strengthen the ties between brand relationship quality and brand loyalty when compared with customers with low individualism scores.

Table9: The moderating effect of individualism in influencing brand relationship quality and brand loyalty

		Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	VIF
1	(Constant)	4.265E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.882	.018	.882	48.932	.000	1.000
2	(Constant)	3.576E-15	.017		.000	1.000	
	Zscore(brandrelationshipquality)	.791	.022	.791	35.361	.000	1.634
	Zscore(Individualismrev)	-.146	.022	-.146	-6.516	.000	1.634
3	(Constant)	.069	.020		3.369	.001	
	Zscore(brandrelationshipquality)	.825	.022	.825	36.680	.000	1.741
	Zscore(Individualismrev)	-.146	.022	-.146	-6.710	.000	1.634
	moderatorIN	.110	.018	.110	6.129	.000	1.109

a. Dependent variable: brand loyalty; IN stands for individualism.

To test the moderating role of masculinity in influencing the relationship between brand relationship quality and brand loyalty, we created a third interacting variable by multiplying the variable masculinity and the variable brand relationship quality, and we called it the *moderator masculinity*. A significant overall regression was found ($F(3,684) = 820.431$, $p < .000$), with an R^2 of .783 and adjusted R^2 of .782).

However, research results showed that masculinity did not have an interaction that influenced the relationship between brand relationship quality and brand loyalty, since it was not significant ($\beta = 0.033$, $p = 0.079$). Therefore, H7 was not supported, suggesting that masculinity could not interact the relationship between brand relationship quality and brand loyalty.

Table 10: The moderating effect of masculinity in influencing brand relationship quality and brand loyalty

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.265E-15	.018		.000	1.000
	Zscore(brandrelationshipquality)	.882	.018	.882	48.932	.000
2	(Constant)	4.428E-15	.018		.000	1.000
	Zscore(brandrelationshipquality)	.890	.018	.890	49.445	.000
	Zscore(masculinity)	-.066	.018	-.066	-3.650	.000
3	(Constant)	-.004	.018		-.223	.824
	Zscore(brandrelationshipquality)	.890	.018	.890	49.514	.000
	Zscore(masculinity)	-.085	.021	-.085	-4.035	.000
	moderatorMAS	.033	.019	.037	1.762	.079
						VIF

a. Dependent variable: brand loyalty; MAS stands for masculinity.

To test the moderating role of power distance in influencing the relationship between brand relationship quality and brand loyalty, we created a third interacting variable by multiplying the variable power distance and the variable brand relationship quality, and we called it the *moderator power distance*. A significant overall regression was found ($F(3,684) = 815.043$, $p < .000$), with an R^2 of .781 and adjusted R^2 of .780). Research results showed that power distance was an interaction

that influenced the relationship between brand relationship quality and brand loyalty, since it was positively but marginally significant ($\beta = 0.036$, $p = 0.054$). Therefore, H8 was supported, indicating that customers with higher power distance scores will strengthen the ties between brand relationship quality and brand loyalty when compared with customers with low power distance scores.

Table 11: The moderating effect of power distance in influencing brand relationship and brand loyalty

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.265E-15	.018		.000	1.000
	Zscore(brandrelationshipquality)	.882	.018	.882	48.932	.000
2	(Constant)	4.295E-15	.018		.000	1.000
	Zscore(brandrelationshipquality)	.873	.018	.873	48.078	.000
	Zscore(powerdistance)	-.055	.018	-.055	-3.015	.003
3	(Constant)	.006	.018		.322	.747
	Zscore(brandrelationshipquality)	.873	.018	.873	48.159	.000
	Zscore(powerdistance)	-.076	.021	-.076	-3.585	.000
	moderatorPD	.036	.019	.040	1.934	.054

a. Dependent variable: brand loyalty; PD stands for power distance.

To test the moderating role of uncertainty avoidance in influencing the relationship between brand relationship quality and brand loyalty, we created a third interacting variable by multiplying the variable uncertainty avoidance and the variable brand relationship quality, and we called it the *moderator uncertainty avoidance*. A significant overall regression was found ($F(3,684) = 808.093$, $p < .000$), with an R^2

of .780 and adjusted R^2 of .779). However, research results showed that uncertainty avoidance did not have an interaction that influenced the relationship between brand relationship quality and brand loyalty, since it was not significant ($\beta = -.025$, $p = 0.105$). Therefore, H9 was not supported, suggesting that uncertainty avoidance could not interact the relationship between brand relationship quality and brand loyalty.

Table 12: The moderating effect of uncertainty avoidance in influencing brand relationship quality and brand loyalty

		Coefficients ^a					Collinearity Statistics
Model		Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta	t	Sig.	VIF
1	(Constant)	4.265E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.882	.018	.882	48.932	.000	1.000
2	(Constant)	4.251E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.863	.020	.863	43.935	.000	1.196
	Zscore(uncertaintyavoidance)	.046	.020	.046	2.361	.019	1.196
3	(Constant)	.010	.019		.539	.590	
	Zscore(brandrelationshipquality)	.867	.020	.867	43.824	.000	1.217
	Zscore(uncertaintyavoidance)	.053	.020	.053	2.655	.008	1.253
	moderatorUA	-.025	.016	-.031	-1.623	.105	1.105

a. Dependent variable: brand loyalty; UA stands for uncertainty avoidance.

To test the moderating role of indulgence in influencing the relationship between brand relationship quality and brand loyalty, we created a third interacting variable by multiplying the variable indulgence and the variable brand relationship

quality, and we called it the *moderator indulgence*. A significant overall regression was found ($F(3,684) = 860.461, p < .000$), with an R^2 of .791 and adjusted R^2 of .790). Research results showed that indulgence was a strong negative interaction that influenced the relationship between brand relationship quality and brand loyalty, since it was negatively significant ($\beta = -0.093, p = 0.000$). Therefore, H10 was supported, indicating that customers with higher indulgence scores will weaken the ties between brand relationship quality and brand loyalty when compared with customers with low indulgence scores.

Table 13: The moderating effect of indulgence in influencing brand relationship and brand loyalty

		Coefficients ^a					Collinearity Statistics
Model		Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta	t	Sig.	VIF
1	(Constant)	4.265E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.882	.018	.882	48.932	.000	1.000
2	(Constant)	4.135E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.839	.022	.839	38.790	.000	1.464
	Zscore(indulgence)	.076	.022	.076	3.538	.000	1.464
3	(Constant)	.052	.020		2.623	.009	
	Zscore(brandrelationshipquality)	.833	.021	.833	39.271	.000	1.468
	Zscore(indulgence)	.115	.022	.115	5.143	.000	1.621
	moderatorINDUL	-.093	.017	-.102	-5.491	.000	1.133

a. Dependent variable: brand loyalty; INDUL stands for indulgence.

To test the moderating role of long term orientation in influencing the relationship between brand relationship quality and brand loyalty, we created a third interacting variable by multiplying the variable long term orientation and the variable brand relationship quality, and we called it the *moderator long term orientation*. A significant overall regression was found ($F(3,684) = 813.360, p < .000$), with an R^2 of .781 and adjusted R^2 of .780). Research results showed that long term orientation

was a negative interaction that influenced the relationship between brand relationship quality and brand loyalty, since it was negatively significant ($\beta = -0.044$ $p = 0.006$). Therefore, H11 was rejected, indicating that customers with higher long term orientation scores will have the ties between brand relationship quality and brand loyalty when compared with customers with low long term orientation scores.

Table 14: The moderating effect of long term orientation in influencing brand relationship and brand loyalty

		Coefficients ^a					Collinearity Statistics
Model		Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta	t	Sig.	VIF
1	(Constant)	4.265E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.882	.018	.882	48.932	.000	1.000
2	(Constant)	4.338E-15	.018		.000	1.000	
	Zscore(brandrelationshipquality)	.893	.019	.893	47.278	.000	1.104
	Zscore(longtermorientation)	-.038	.019	-.038	-1.986	.047	1.104
3	(Constant)	.013	.019		.721	.471	
	Zscore(brandrelationshipquality)	.903	.019	.903	47.171	.000	1.146
	Zscore(longtermorientation)	-.023	.020	-.023	-1.178	.239	1.189
	moderatorLO	-.044	.016	-.054	-2.785	.006	1.163

a. Dependent variable: brand loyalty; LO stands for long term orientation

The following table summarizes multiple regression coefficients for our model testing.

Table 15: Summaries of hypotheses testing

Hypotheses	unstandardized B	standardized β	p	Supported or Rejected
Mediation effect				
H1: Information quality → brand relationship quality	0.705	0.808	***	supported
H2: Interactivity → brand relationship quality	0.48	0.753	***	supported
H3: Companies' reputation → brand relationship quality	0.559	0.829	***	supported
H4: Company size → brand relationship quality	0.747	0.718	***	supported
H5: Brand relationship quality → brand loyalty	0.935	0.882	***	supported
Moderation effect: effect on brand loyalty				
H6: Brand relationship quality X individualism	0.11	0.11	***	supported
H7: Brand relationship quality X masculinity	0.033	0.037	.079	rejected
H8: Brand relationship quality X power distance	0.036	0.04	.054	supported (marginally)
H9: Brand relationship quality X uncertainty avoidance	-0.025	-0.031	.105	Not supported
H10: Brand relationship quality X indulgence	-0.093	-0.102	***	supported
H11: Brand relationship quality X long term orientation	-0.044	-0.054	**	rejected

Notes: *p-value<0.05, **p-value<0.01, ***p-value<0.001

5. Discussion

5.1. General discussion

Previous studies mainly focused on how brand relationship quality influences customer's loyalty towards brands (Kressmann *et al.*, 2006; Zhang, 2016), however, barely any research looked at the role of cultural values in influencing the relationship between brand relationship quality and brand loyalty, especially in social commerce

environments. This research investigated the relationship between characteristics of brand pages in social media platforms, brand relationship quality and brand loyalty, while taking individual cultural values into account to test its moderation effects. In this research, it first investigated the mediating role of brand relationship quality in influencing main characteristics of brand pages (information quality, interactivity, size, and reputation) in social commerce environments and brand loyalty. Supported for H1-H4, the research found that brand relationship played a partial mediating role, indicating that main characteristics of brand pages may also have some direct relationships with brand loyalty in social commerce environments. This research found the same result as those of Zhang (2016)'s study, as information quality was partially mediated by brand relationship quality on brand loyalty. However, different from Zhang *et al.*'s (2016) study, this research found partial mediation effect of brand relationship quality on the effect of interactivity on brand loyalty. The main reasons are presented as follows: Zhang *et al.* (2016) conducted the research by only inviting Weibo users, while in our research we included participants from Weibo and Twitter, which indicated that brand pages in different social media platforms may have different interactive communication methods with their customers, thus influencing customers' attitudes towards brands.

In the second part, this research focused on the moderating role of cultural values in influencing the relationship between brand relationship quality and brand loyalty. Research results showed that cultural values play an important moderating role. According to our findings, individualism positively influences the relationship between brand relationship quality and brand loyalty. To be specific, when brand relationship quality is high, customers with higher individualism scores tend to show higher level of brand loyalty to the brand than those with lower individualism scores.) This result confirmed Lam (2007)'s study, which found positive relationships between individualism and brand loyalty. What's more, our findings also confirmed that power distance positively influences the relationship between brand relationship quality and

brand loyalty. This indicates that customers with high power distance scores are more constrained when it comes to purchasing intentions. Compared with customers with low power distance scores, they are less likely to switch to other brands. Therefore, they are more brand loyal.

Next, this research also confirmed that indulgence has a negative effect on the relationship between brand relationship quality and brand loyalty. When talking about indulgence, customers with low indulgence scores tend to constrain their purchasing desires, which is similar to customers with high power distance scores. As a result, customers with low indulgence scores are less likely to switch to other brands since they are not epicurean and instead, they tend to be more pragmatic. Therefore, this result encourages marketers to pay more attention to customers who are less indulgent, since their purchasing decisions tend to be more influential on company's brand relationships and loyalty when compared with customers who are high in indulgence.

This research did not prove that masculinity could moderate the effect of brand relationship quality on brand loyalty, since the result was not significant. This could be one of the most surprising results that we did not expect. Previous studies have confirmed that Chinese society is quite masculine orientated, which means Chinese customers give tacit consent to the agreement that men should obtain more power in working and living environments. Previous studies also indicated that customers who score high in masculinity could become more brand loyal. On the contrary, in our research, it showed that masculinity could not successfully moderate the relationship between brand relationship quality and brand loyalty. A possible reason is that the modern society promotes concepts of feminism around the world. In China, there is a tendency to promote that women should have more equal rights in working environments, in living environments, and in social status. Compared with Chinese people, traditionally Canadian people are less masculinity oriented (Hofstede, 2010). Standing on this point, it could help to explain why masculinity could not moderate

the relationship, since there is a tendency for Chinese customers to transferring their concepts of masculinity to feminism, which means Chinese customers and Canadian customers may have less difference in masculine scores than Hofstede's study.

Another possible reason is that masculinity may have less direct connections with brand loyalty than we used to think, since gender issues are quite complex, especially standing on points of individual levels. Therefore, we could conclude that masculinity has no effect on influencing the interactivity between companies and customers and so as for brand loyalty in social commerce environments.

What's more, this research failed to generate a significant result on the moderating role of uncertainty avoidance in influencing brand relationship quality and brand loyalty. There are several possible reasons. First and foremost, when comparing uncertainty avoidance scores between China and Canada, it seems that there is a little difference (China scored 30 and Canada scored 48), this indicates that people from these two countries are uncertainty accepting and willing to take in new thoughts and technologies (Hofstede, 2010). Therefore, in this way Chinese and Canadian respondents are not a good sample for testing the moderating role of uncertainty avoidance in influencing brand relationship quality and brand loyalty, since they both have comparatively low scores. Second, scholars like Lim (2004) suggested that people in low uncertainty avoidance countries tend to utilize the Internet as a valuable channel to collect useful product and brand information, and then these customers are more likely to choose offline shopping instead of online shopping. On the contrary, customers in high uncertainty avoidance countries have more trust in online environments due to government supports. In our research, the probable reason that uncertainty avoidance did not moderate the effect of brand relationship quality on brand loyalty is that our respondents come from low uncertainty avoidance countries, and customers may prefer to utilize information of brand pages as a channel to collect information that they want, and they may involve in offline shopping environments, instead of participating in social commerce environments. Therefore, it is possible to

conclude that the moderating role of uncertainty avoidance is so weak that it could be ignored in influencing the relationship between brand relationship quality and brand loyalty.

In the last place, this research failed to confirm the positive effect of long term orientation in influencing brand relationship quality and brand loyalty. Although it had significant result for the moderator long term orientation, it had the negative direction, which was opposite to our hypothesis. Possible reasons are as followed: In the first place, in the pretest it showed that the reliability of the construct long term orientation only had 0.53, which was quite low compared with other constructs. It is possible that Yoo's scales to measure this construct are not suitable for this research. Secondly, critics from Chinese scholars suggest that in traditional Chinese cultures, it is difficult for Chinese to distinguish two opposite concepts since Chinese culture is kind of 'syncretic and harmonious' (Faure & Fang, 2008). For instance, in Fang (2008)'s opinion, Chinese culture is rooted in 'Yin Yang' theory, which indicates there is no absoluteness in society. 'Yin Yang' theory has a profound influence in the way of Chinese people thinking and behaviors. When they are required to choose the preference between 'long term orientated' and 'short-term orientated', they will be overwhelmed to some extents. This is because some Chinese consumers are mixed up with both characteristics, or some of them may believe that they belong to marginal groups that neither 'long-term orientated' nor 'short-term orientated'. Besides, more and more Chinese consumers are changing their consumption concepts in order to cater to current tendencies. For instance, young Chinese consumers of this date are not cash driven anymore when compared with consumers in elder generations, since rapid development of smartphones has made it possible to use virtual transactions through apps. Also, young Chinese consumers tend to accept premature consumptions easily, care more about current situations instead of pursuing lifelong goals. There is a catchword that populates in current young Chinese group: 'Xiao Que Xing', which means 'small but owned happiness'. This catchword represents that young Chinese

consumers are more likely to focus on current moments or accomplishments that they have, rather than uncertain and illusory future that they cannot control. These phenomena indicate that Chinese consumers may change their ways of thinking to ‘short term orientated’, which corresponds to Wang (2012)’s opinion, that new consumption theories like ‘materialism’ and ‘short term orientation’ are getting stronger in current Chinese society. Therefore, long term orientation is not shown as a positive moderator that influences the effect of brand relationship quality on brand loyalty.

5.2. Managerial implications

This research offers several managerial implications. In the first place, brand relationship quality influences customer’s perceptions of brands when taking characteristics of brand pages (i.e., size, reputation, information quality and interactivity) into account. If companies hope to earn customer’s affections and loyalty, they need to maintain great and friendly relationships with their customers. With the development of social commerce, companies need to excavate inner values of their brand pages by utilizing social media platforms. For instance, to get more customers’ attention and support, companies could focus on holding more meaningful social activities online, using the strength of Internet to promote their brands. To cater to customers’ diverse tastes, companies could interact with their customer and exchange opinions by using their brand pages through popular social media platforms (i.e., Weibo, Twitter, Facebook, Instagram, etc.). What’s more, the current business world is connected tightly through the Internet, marketers and managers of multinational companies need to take cultural values into account when considering business expansion around the world. Our research suggests that cultural dimensions like individualism, power distance, and indulgence permeate the interactive relationship between brand relationship quality and customer’s loyalty towards brands. For instance, our research showed that when brand relationship is high,

customers who score high in individualism show higher brand loyalty of one brand. If marketers and managers hope to increase market growth and brand loyalty, they need to concentrate more on customers who belong to low individualism groups since they are less interested in participating in companies' interactive brand relationship buildings when compared with customers with high individualism scores. To gain global markets in social commerce environments, it is important for marketing managers to take these meaningful cultural dimensions into consideration. Another implication for marketers from our research is that masculinity showed no effect on influencing brand relationship quality and brand loyalty. This could be a cue for managers to avoid referring to gender issues when interacting with their customers through social media platforms. Besides, there is a popular tendency for brands to launch series of products with neutral elements, because minimalism and natural style are playing prevalent roles in marketing. Therefore, marketers could utilize this tendency to attract more customers and gain their loyalty.

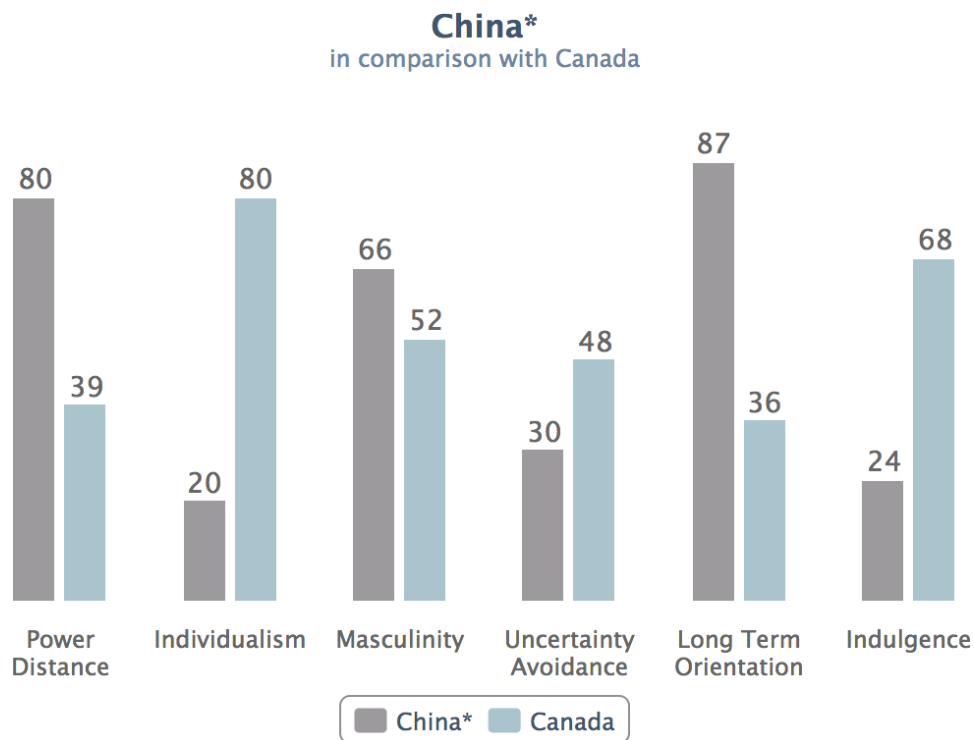
6. Limitations and future directions

There are several limitations in this research. First and foremost, due to time and money constraints, we collected our data through the CrowdFlower platform, and we only used Chinese and Canadian participants who are the users of Twitter and Weibo. For future studies, researchers need to collect data on multiple social media platforms, such as Facebook, Instagram, and Wechat in order to expect whether research results could be greatly different from this study. Since social media platforms like Facebook and Instagram are quite different when compared with social media platforms like Twitter and Weibo, which indicates that users and companies may use different methods to exchange information. Therefore, it could be interested to see how these social media platforms may influence the relationship between brand relationship quality and brand loyalty. Second, researchers need to collect data through a more diversified range. For instance, future research could collect data in the U.S.A.,

Russia, Europe and Asia to detect whether the results of the moderating roles of cultural dimension is different from this study. For instance, Indian and African cultures are also quite different from North American and traditional Chinese culture. Therefore, it is quite interesting to learn how customers from these countries to react when it comes to social media activities held by companies in social commerce environments, since globalization has rooted greatly in business fields, which indicates culture should be brought to the forefront. Third, several scholars have suggested that Hofstede's cultural dimension is kind of 'outdated' during the process of globalization and modernization (Beugelsdijk & Hoorn, 2015; Seock & Lin, 2011). Seock and Lin (2011) also denote that outer environments like politic and economic environments changes will lead to individual's cultural values change. Therefore, for future studies, it is important for scholars to compare Hofstede's cultural framework and other cultural frameworks and choose the most suitable one for their studies. Besides, in future studies, scholars could pay attention to whether brand relationship quality is still a mediator in influencing the effect of characteristics of brand pages on WOM behaviors, since comments under official brand pages in social media platforms are fundamental to influence customer's WOM behaviors and the intention of purchase. Last but not least, this research only focused on the main characteristics of brand pages in company's angle while it ignored customer drivers and social drivers. Therefore, future studies may focus on customer's drivers like self-control, and social drivers like customer recognitions (Lacey, 2007) and see the role of brand relationship quality playing in influencing brand loyalty.

APPENDIXES

Figure2: Hofstede's six dimensions about cultural values



(Hofstede, <https://www.hofstede-insights.com/>)

Figure 3: Zhang et al. (2016) research model

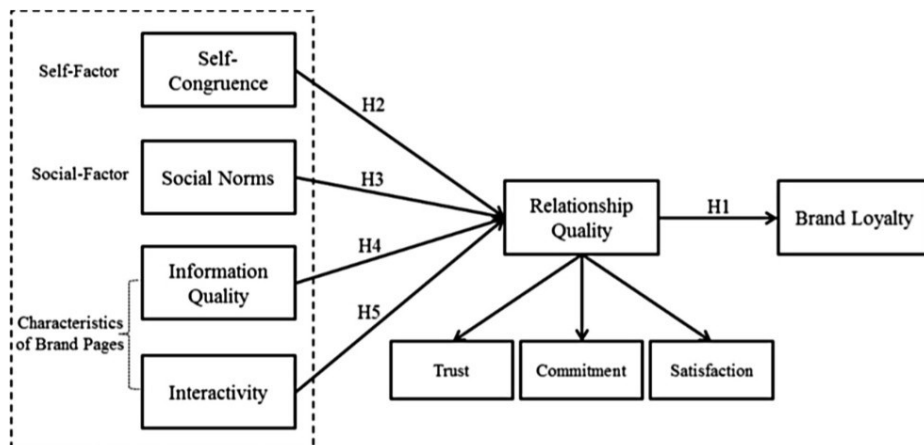


Fig. 1. Research model.

(Zhang, 2016)

Table16: Comparisons of Brand Page Followers on Twitter and Weibo

Brand Name	Followers on Twitter	Followers on Weibo
1.Huawei	299,000	2,120,000
2.Samsung	12,100,000	7,868,101
3.Zara	1,230,000	710,000
4.H&M	8,430,000	890,000
5.Nike	6,840,000	810,000
6.Adidas	3,060,000	2,090,000
7. Amazon	2,710,000	4,340,000
8.McDonald's	3,400,000	790,000
9.Starbucks	11,900,000	1,320,000
10.IKEA	370,000	1,560,000

Information and Consent Form

Study Title: The Moderating Effects of Cultural Values in Building Brand Loyalty Under Social Commerce Environments

Researcher: Di Lyu (Master of Science in Marketing Department)

Researcher's Contact Information: lyudi0209@163.com OR (514)-561-0670

Faculty Supervisor: Michel Laroche (Professor, JMSB Marketing Department)

Faculty Supervisor's Contact Information: Michel.laroche@concordia.ca
(514)-848-2424 ext.2942

Source of funding for the study: CASA Research Grant

You are invited to participate in a web based online survey on investigating the positive and interactive relationships between popular brand pages and their customers on social media platforms. This is a research project being conducted by Di Lyu, a master student at Concordia University. It should take approximately 10-15 minutes to accomplish. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please contact the researcher.

A. PURPOSE

With the rapid development of e-commerce, more and more companies have set up their brand pages through popular social media (i.e. Twitter/ Instagram/ Facebook) in order to build up harmonious relationships with their customers.

The purpose of the research is to investigate how companies use social media platforms to interact with their customers and build up good relationships with them. On the other hand, this research is also intended to detect whether customers will be loyal to these brands and may contribute to repurchasing behaviors.

B. PROCEDURES

If you participate, you will be asked to read the instruction and then fill out this questionnaire.

In total, participating in this study will take approximate 10-15 minutes to accomplish.

C. RISKS AND BENEFITS

There are not foreseeable risks involved in participating in this study other than those encountered in day to day life.

Benefits: This research is not intended to benefit you. However, your responses may help the researcher to learn more about how followers on popular social media feel about targeted brands and their consumption behaviors.

D. CONFIDENTIALITY

Your questionnaire answers will be sent to a link at SurveyMonkey.com where data will be stored in a password protected electronic format. Survey Monkey does not

collect identifying information such as your name, email address, or IP address.

Therefore, your responses will remain anonymous.

We will not allow anyone to access the information, except people directly involved in conducting the research. We will only use the information for the purposes of the research described in this form.

At the end of the survey you will be asked if you agree to provide your social media account IDs (e.g. Twitter) so that the researcher will contact you and provide you with the \$5 gift card code as a compensation. If you choose to provide your account IDs, your survey responses may no longer be anonymous to the researcher. This means the researcher may know your identity while the researcher will not disclose any information about that. Besides, no names or identifying information will be included in any publications or presentations based on these data, and your responses to this questionnaire will remain confidential since the researcher will protect your information into a separated mobile hard disk drive with password protection, which means only the researcher have the access to your information

We will protect your response information by converting them into electronic data, and they will be kept into researcher's personal computer with password protection. Only during the data analysis period that supervisor and researcher will have access to the research data.

We intend to publish the results of the research. However, it will not be possible to identify you in the published results.

We will destroy the information five years after the end of the study.

F. CONDITIONS OF PARTICIPATION

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time.

As a compensatory indemnity for participating in this research, you will receive \$5 gift card code by providing your social media ID information so that the researcher could contact you. If you withdraw before the end of the research, you will receive nothing.

To make sure that research money is being spent properly, auditors from Concordia or outside will have access to a coded list of participants. It will not be possible to identify you from this list.

We will tell you if we learn of anything that could affect your decision to stay in the research.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

G. PARTICIPANT'S DECLARATION

Please select your choice below. Clicking on the 'Agree' button indicates that:

I have read and understood this form.

I have had the chance to ask questions and any questions have been answered.

I agree to participate in this research under the conditions described.

I am 18 years of age or older

-- Agree

-- Disagree

If you have questions about the scientific or scholarly aspects of this research, please contact the researcher. Their contact information is on page 1. You may also contact their faculty supervisor.

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

Questionnaire

Q1 What is your gender?

m Male (1)

m Female (2)

Q2 What is your age?

m 18-25 (1)

m 26-33 (2)

m 34-41 (3)

m 42-49 (4)

m >50 (5)

Q3 What is your nationality

m Chinese (1)

m Canadian (2)

m French (3)

m British (4)

m American (5)

m Indian (6)

m Others (7) _____

Q4 What's your education level?

m High school (1)

m College (2)

m Bachelor (3)

m Master (4)

m Doctor (5)

Q5 Please recall and then select one brand that you follow most frequently on Twitter.

m Nike (1)

m Samsung (2)

m Amazon (3)

m Adidas (4)

m Huawei (5)

m Starbucks (6)

m Zara (7)

m McDonald's (8)

m IKEA (9)

m H&M (10)

Q6 Are you a follower of this brand on Twitter

m Yes (1)

m No (2)

Note: If respondent chooses No, then the questionnaire is ended.

Q7 How long have you been followed this brand?

m less than 1 month (1)

m 1-3 months (2)

m 4 months - 1 year (3)

m 1-2 years (4)

m 2- 3 years (5)

m more than 3 years (6)

Q8 Have you ever bought products from this brand due to their social media marketing activities on Twitter?

m Yes (1)

m No (2)

Q9 If so, what's the frequency that you bought products in the past six months?

m Once a week (1)

m Biweekly (2)

m Once a month (3)

m Once a quarter (4)

m Once in the past six months (5)

Q10 What are your assessments about this brand page on Twitter?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Because I like this brand, I bought its products. (1)	m	m	m	m	m
I am more interested in this brand compared with other brands. (2)	m	m	m	m	m
I will buy this brand in the future. (3)	m	m	m	m	m
I prefer to buy other products from this brand. (4)	m	m	m	m	m
I will recommend this brand to other people. (5)	m	m	m	m	m
This brand is reliable. (6)	m	m	m	m	m
This brand meets my expectations. (7)	m	m	m	m	m
This brand is a good brand. (8)	m	m	m	m	m
I feel proud when I am the member of this brand community. (9)	m	m	m	m	m
I sense the feeling that I belong to this brand community. (10)	m	m	m	m	m
I am concerned about the long-term goals of this brand community. (11)	m	m	m	m	m
I am satisfied with this brand. (12)	m	m	m	m	m

I am happy with this brand. (13)	m	m	m	m	m
I feel good when I use this brand. (14)	m	m	m	m	m

Q11 The information that the brand posts on its brand page is:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
Credible (1)	m	m	m	m	m
Affluent (2)	m	m	m	m	m
Excellent (3)	m	m	m	m	m
New (4)	m	m	m	m	m

Q12 I think this brand:

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
has quick responses on its brand page (1)	m	m	m	m	m
is willing to exchange useful information with followers on the brand page (2)	m	m	m	m	m
is good at interacting with followers on the brand page (3)	m	m	m	m	m

Q13 What are your assessments about the company that operates this brand community?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
This company is very large. (1)	m	m	m	m	m
This company is the best in the industry. (2)	m	m	m	m	m
This company has a great reputation. (3)	m	m	m	m	m
This company is concerned about its customers. (4)	m	m	m	m	m
This company is trustworthy. (5)	m	m	m	m	m

Q14 What is your opinion on the following statements?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
People in high positions intend to make more decisions without consulting people in low positions (1)	m	m	m	m	m
People in high positions should not ask opinions from people in low positions too frequently. (2)	m	m	m	m	m
People in high positions should not make social interactions with people in low positions. (3)	m	m	m	m	m
People in lower positions should not disagree with decisions made by people in high positions. (4)	m	m	m	m	m
People in high positions should not delegate important missions to people in low positions. (5)	m	m	m	m	m
Individuals should sacrifice their self-interest for the group. (6)	m	m	m	m	m

Individuals should stick with the group even through difficulties. (7)	m	m	m	m	m
Group success is more important than individual success. (8)	m	m	m	m	m
Group welfare is more important than individual rewards. (9)	m	m	m	m	m
Group loyalty should be advocated even if individual goals would suffer. (10)	m	m	m	m	m
It is more necessary for men to have professional occupations than it is for women. (11)	m	m	m	m	m
Men usually solve problems with logical analysis, women solve problems by intuition. (12)	m	m	m	m	m
There are some occupations that man can always do better compared with women. (13)	m	m	m	m	m
It is typical for men to solve difficult problems since they have active and forcible approaches. (14)	m	m	m	m	m
It is important to	m	m	m	m	m

have instructions spelled out in detail so that I always know what I am expected to do. (15)					
It is important to closely follow instructions and procedures. (16)	m	m	m	m	m
Rules and regulations are important for me, because they inform me of what is expected of me. (17)	m	m	m	m	m
Standardized work procedures are helpful for me. (18)	m	m	m	m	m
I have the liberty to live my life as I please. (19)	m	m	m	m	m
I seek every chance I can to have fun. (20)	m	m	m	m	m
Feeling and desires related to merrymaking with friends should be gratified freely. (21)	m	m	m	m	m
There should not be any limits on individuals' enjoyment. (22)	m	m	m	m	m
Societies should value relatively free gratification of desires and feelings. (23)	m	m	m	m	m

Gratification of desires should not be delayed. (24)	m	m	m	m	m
Positive feelings should not be restricted. (25)	m	m	m	m	m
Desires, especially with respect to sensual pleasure should not be suppressed. (26)	m	m	m	m	m
I think I am a person that is careful about managing money. (27)	m	m	m	m	m
I insist absolutely on what I want despite opposition. (28)	m	m	m	m	m
I am a person with long term planning. (29)	m	m	m	m	m
I give up today's fun for future success. (30)	m	m	m	m	m
I am working hard for success in the future. (31)	m	m	m	m	m

Your code for this questionnaire is QA13952103

Pretest

Table14: Pretest Factor Analysis

Total Variance Explained							
	Component	Initial Eigenvalues ^a			Extraction Sums of Squared Loadings		
		Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Raw	1	3.093	44.232	44.232	3.093	44.232	44.232
	2	1.598	22.857	67.088	1.598	22.857	67.088
	3	0.469	6.714	73.802			
	4	0.355	5.078	78.88			
	5	0.26	3.718	82.598			
	6	0.246	3.521	86.119			
	7	0.218	3.114	89.233			
	8	0.178	2.549	91.782			
	9	0.156	2.23	94.012			
	10	0.123	1.759	95.771			
	11	0.098	1.407	97.178			
	12	0.083	1.189	98.367			
	13	0.067	0.961	99.328			
	14	0.047	0.672	100			
Rescaled	1	3.093	44.232	44.232	6.487	46.336	46.336
	2	1.598	22.857	67.088	2.434	17.387	63.723
	3	0.469	6.714	73.802			
	4	0.355	5.078	78.88			
	5	0.26	3.718	82.598			
	6	0.246	3.521	86.119			
	7	0.218	3.114	89.233			
	8	0.178	2.549	91.782			
	9	0.156	2.23	94.012			
	10	0.123	1.759	95.771			
	11	0.098	1.407	97.178			
	12	0.083	1.189	98.367			
	13	0.067	0.961	99.328			
	14	0.047	0.672	100			

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